Dr. Gregory E. Bell

Wayne W. and Jean Huffine Endowed Professor of Turfgrass Science
Oklahoma State University, Stillwater, OK

Ph.D. 1997. Agronomy with emphasis on turfgrass physiology and management. The Ohio State University, Columbus, Ohio.

Work assignment

Provide leadership in turfgrass research and teaching. Prepare undergraduate students to enter the turfgrass industry by communicating basic scientific principles and applied management techniques. Teach classes in Turfgrass Management, Turfgrass Physiology and Ecology, and Personnel and Financial Management for Horticulture. Prepare graduate students to enter industry or academia through a program including advanced education, innovative turfgrass research, and effective technical writing. Design, administer, and supervise or execute unique turfgrass research with state, national, and international focus. Provide scientific information in two major areas: Reduction of nutrient runoff from fine turf and adaptation of bermudagrass to shade environments. Secure extramural funding that contributes to an aggressive research program. Provide membership and leadership to interdisciplinary teaching and research. Maintain quality relationships with local, national, and international peers and with turfgrass practitioners and organizations in Oklahoma. Publish research results in peer-reviewed scientific journals. Contribute research and technical articles to the popular press. Contribute to regional, national, and international scientific societies.

Recent publications

Bell, G.E., D.L. Martin, K.J. Koh, and H.R. Han. 2009. Comparison of Turfgrass Visual Quality Ratings with Ratings Determined Using the GreenSeeker Handheld Optical Sensor. Hort Technol. 19:309-316.

Bell, G.E. and X. Xiong. 2008. The history, role, and potential of optical sensing for practical turf management. pp. 641-658. M. Pessarakli (ed.) *Handbook of turfgrass management and physiology*. CRC Press, Boca Raton, FL.

Bell, G.E. and J.Q. Moss. 2008. Management practices that reduce runoff transport of nutrients and pesticides from turfgrass. p. 133-150. In M. Nett, A.M. Petrovic, M.J. Carroll, and B.P. Horgan (ed.) *The Fate of Turfgrass Nutrients and Plant Protection Chemicals in the Urban Environment*. Symposium Series no. 997, American Chemical Society, Oxford University Press, Oxford, England.

Xiong, X., G.E. Bell, J. B. Solie, M.W. Smith, and B. Martin. 2007. Bermudagrass seasonal responses to n fertilization and irrigation detected using optical sensing. Crop Sci. 47:1603-1610.

Awards

Wayne W. and Jean Huffine Endowed Professorship in Turfgrass Science. 8/2/04-8/1/09.

Faculty Phoenix Award. 2003. Graduate and Professional Student Government Association, Oklahoma State University, Stillwater, OK. Annually presented to the outstanding graduate student teacher/advisor at Oklahoma State University.

United States Department of Agriculture Secretary's Honor Award. 2002. Presented to The GreenSeeker Sprayer Research Team at Oklahoma State University for developing a revolutionary approach to fertilizing crops with GreenSeeker computerized sensor equipment that reads the crop needs and sprays accordingly and immediately.

Outstanding Advisor in the College of Agricultural Sciences and Natural Resources. 2001. Oklahoma State University Agricultural Ambassadors, Stillwater, OK. College-wide award presented by the students. Award is granted to the advisor who best demonstrates a willingness to help students beyond the normal requirements of the position.

Teaching Summary

Hort 3153: Primary Instructor

Fall semesters, 1998 - 2008. Hort 3153. Turfgrass Management. Oklahoma State University.

Student Evaluations: Overall instructor and course mean of all semesters = 3.67.

Description: A course designed to provide students with an understanding of turfgrass species and general management. Instructional emphasis is on lawn care and commercial property. Class sizes range between 25 to 40 students specializing in landscape architecture, landscape management, horticulture, agronomy, and turf. The class is taught for 15 weeks each fall with two lecture sessions and two lab sections per week.

Hort 3253: Primary Instructor

Spring semesters even numbered years, 2006-2008. Hort 3253. Personnel and Financial Management for Horticulture. Oklahoma State University.

Student Evaluations: Overall instructor and course mean of all semesters = 3.56.

Description: Students learn to prepare and execute an operational budget for the horticultural service industries and methods for maintaining an effective work force. The horticultural industries, primarily turf and landscape contracting, require students entering the industry to have a basic knowledge of certain management principles. Our students must be prepared to operate within a budget and manage personnel to be successful in the work place.

Hort 4453: Primary Instructor

Spring semesters even numbered years, 1998-2008. Hort 4453. Turfgrass Physiology and Ecology. Oklahoma State University.

Student Evaluations: Overall instructor and course mean of all semesters = 3.63.

Description: A course designed to provide students with an understanding of cultural techniques for managing turfgrass under stress. The physiology and ecology of turfgrass plants and their relationships to turf maintenance is presented to help train students to make management decisions in situations where they have little experience. A practical budgetary design for managing an 18-hole golf course, a lawn care company, or a professional athletic field is required. Class sizes range from 25 to 35 students. Most students specialize in turf management with emphasis on lawn care, sports turf, or golf course management. This class is also available for graduate credit and is taught for 15 weeks every other spring.

International Teaching Expeirience

Summer 2003. Was invited to teach a special session turf management class at The Royal Veterinary and Agricultural College in Copenhagen, Denmark. The material presented was equivalent to the Hort 3153, Turfgrass Management class, taught at OSU, Stillwater. Seven students attended and student evaluations were high.

Research Summary

Extramural Funding

Principal investigator				Co-investigator			
Grants		Proposals not funded		Grants		Proposals not funded	
Number	Funds	Number	Funds	Number	Funds	Number	Funds
43	$655,276	7	$400,712	3	$139,000	7	$458,454

[a] Includes grants from Oklahoma Turfgrass Research Foundation and product development

Peer-Reviewed Publications

Primary author			Student's major advisor			Co-author		
Published	Accepted	Submitted	Published	Accepted	Submitted	Published	Accepted	Submitted
14[a]	1	0	8	0	0	4	0	0

[a] Includes seven articles published from research conducted at The Ohio State University

Scientific Presentations/Abstracts

Primary author	Student's major advisor	Co-author
25[a]	12	18

[a] Includes seven presentations while a student at The Ohio State University

Peer Reviews

Promotion[a]	Book	Proposal	Hatch	Internal	Tri-Society	ASHS	International	Editor	Other
3	2	2	4	7	32	15	9	19	5

[a] Requests for evaluation at institutions other than Oklahoma State University

Recent Administrative Support

University. Flexible Benefits Compensation Committee. 2005-2008. Oklahoma State University.

University. OSU Faculty Council. 2004-2007. Oklahoma State University.
Chair. Retirement and Fringe Benefits Committee. 2005-2007.

University. Intellectual Property Screening Committee. 2003-2006. Oklahoma State University.

University. Student Conduct Committee. 2000 to 2004. Oklahoma State University, Stillwater, OK.
Faculty representative, student expulsion hearing. 3/1/02.
Chair, student conduct appeal committee. 10/11/02.
Chair, student academic misconduct sanction hearing. 4/28/04.

College. Environmental Sciences Steering Committee. 1998-2007. Division of Agricultural Sciences and Natural Resources, Oklahoma State University.

College. Ag Faculty Council. 2002 to 2004. Division of Agricultural Sciences and Natural Resources, Oklahoma State University.
Chair. Committee on Reappointment, Promotion, and Tenure. 2003/2004.
Chair Elect. Committee on Reappointment, Promotion, and Tenure. 2002/2003.

National. American Society of Agronomists C-5 Special Symposium Committee. 2000-2004. Crop Science Society of America, Madison, WI.
Co-Chair. November 2001-November 2002.